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CARNEGIE

MAGAZINE

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Gold ornaments made by the Incas. Ornaments like these were seized by the conquistadors and shipped back to Spain. On exhibit at Carnegie Museum.

The Spanish Economy

Approximately 1479-1600 A. D.

The Spain of Columbus's time was powerful the world over. But the seeds that were to undermine this dominance were sown by Spain's exploitation of the New World.

With every Spanish conquest, the treasury grew richer in gold and silver . . . painfully extracted from Indian slaves laboring in America's abundant mines. It was Spain's plan, at first, to keep the gold within the country; and this short-sighted, economic policy led to continually rising prices.

Finally competition from lower-cost foreign goods sapped the strength of Spanish manufacturing enterprise until, at last, Spain's great power waned. In just one industry—textiles for example—3,000 silk looms flourished in the 1500's, but dropped to some 60 looms in 1655.

The detrimental effects of Spain's economic policy illustrate the advantages of our own free economy, in which our flexible monetary system and modern banking services help to promote the free flow of manufactured goods.

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CARNEGIE INSTITUTE 4400 Forbes Street, Pittsburgh 13, Pennsylvania

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Associated Artists Exhibition weekdays 2:00 to 10:00 P.M.
Tuesdays 10:00 A.M. to 10:00 P.M.
Sundays 2:00 to 5:00 P.M.

CAFETERIA OPEN FOR VISITORS TO THE BUILDING

Luncheon 11:00 A.M. to 2:00 P.M., weekdays
Snack Bar 2:00 to 5:00 P.M., weekdays
Dinner 4:30 to 7:00 P.M., Tuesdays and Thursdays

CARNEGIE LIBRARY OF PITTSBURGH 4400 Forbes Street, Pittsburgh

Weekdays 9:00 A.M. to 9:00 P.M., reference services to 10:00 P.M.
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COVER

The complex mechanical lock of an iron chest from southern Germany in the seventeenth century appears on the cover, in part. Its maze spreads over the entire inner surface of the lid (30 inches by 15 1/4 inches) and is controlled by a single key. From the Herbert DuPuy collection of Carnegie Institute, this "treasure chest" has been displayed prominently the past year in connection with the rehabilitation campaign. It is said to have been used originally by the town of Rothenburg.

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MARCH CALENDAR

CONTEMPORARY ITALIAN ARTISTS

More than a hundred graphics will be included in a comprehensive exhibition of contemporary Italian artists on view in the second-floor galleries from March 8 through April 1. The show will contain lithographs, etchings, and woodcuts. Many of the artists are familiar through their representation in PITTSBURGH INTERNATIONALS, such as Afro, Campigli, Carrà, de Chirico, Gentilini, Morandi, Music, Sacetti, Santomaso, and Severini.

PAINTINGS BY SAMUEL ROSENBERG

Paintings by Samuel Rosenberg will be shown in third-floor Gallery K, April 1 through 29. This is the first one-man exhibition of the 1956 PITTSBURGH ARTIST series. Subsequent shows will be given to Russell Twiggs, Tom Rowlands, and Marie Tuicillo Kelly.

GALLERY OF CONTEMPORARY ART

Paintings acquired by Carnegie Institute from the 1955 PITTSBURGH INTERNATIONAL EXHIBITION OF CONTEMPORARY PAINTING may be seen on the third floor. Among the artists are Manessier, Pedersen, de Kooning, Rowlands, Frankenthaler, Scott, Dudent, Vasarely, Afro, Calcagno, Cornille, Wou-Ki, Marca-Relli, Doucet, Sugai, Birolli, Eklind, Bazioties, and Wingren.

RECENT FINE ARTS ACQUISITIONS

Displayed in the second-floor alcove are *The Lighthouse of Febmars* (1912) by Ernst Ludwig Kirchner, purchased through the Patrons Art Fund, and gifts from G. David Thompson: Carlo Carrà's *The Swimmers* (1910); Heinz Trokes' *Hearing and Seeing* (1951); two mosaics by Carl-Henning Pedersen, *Flying Green Bird* and *Winter* (both 1954); and David Smith's *All Around the Square* (stainless steel).

In the Contemporary Gallery are *Horse and Rider* by Marino Marini (polychromed plaster), a gift from Mr. Thompson, and, in stone, *St. Francis and the Wolf* (1951) by Adolph Dioda, given by Mr. and Mrs. James H. Beal.

ASSOCIATED ARTISTS OF PITTSBURGH

The 46th annual exhibition by local artists continuing through March 15 includes oils, water colors, graphics, drawings, sculpture, and crafts, totaling nearly 500 pieces. Gallery hours are 2:00 to 10:00 P.M., weekdays, and 2:00 to 5:00 P.M., Sundays.

POMPEIAN BRONZES

A reinstallation of reproductions of bronzes from Pompeii and Herculaneum may be seen in Architectural Hall, back of the large St. Gilles façade.

CARNEGIE INSTITUTE SOCIETY LECTURES

Mondays, 8:15 P.M., Mellon Auditorium, Mr. Lebanon

Tuesdays, 6:30 and 8:30 P.M., Carnegie Music Hall

Admission by membership card

March 5-6—ADRIATIC HOLIDAY

Karl Robinson will show one of Europe's secluded beauty spots, Trieste and the Dalmatian coast, that is rich in folklore and Old World picturesqueness, and has been a battle prize for many great powers in the past.

March 12-13—VACATION IN THE SOUTHWEST

Dennis Glen Cooper's pictures are a kaleidoscope of the sunny Southwest, its national parks, canyons, rivers, and deserts. Indian festivities, ancient cliff dwellings, the Grand Canyon at sunset, will be highlights.

March 19-20—NORTHWEST BY WEST

(Harmony Dairy Company, sponsor)

Cleveland Grant and his wife, photographers for Walt Disney, show big-game scenes—mating battles of bison bulls, Alaskan caribou migration, and the fertile Okanagan Valley, Williams Creek of gold-rush fame.

March 26-27—EVERGREEN PLAYGROUND

Stan Midgley, humorist, tours Oregon and Washington by bicycle to show us matchless lakes and mountains, rivers and forest, sports centers, cities, and vast orchards. His lecture concludes the Society series.

SUNDAY ORGAN RECITALS

Marshall Bidwell presents a recital on the great organ of Music Hall each Sunday afternoon from 4:00 to 5:00 o'clock, sponsored by the Arbuckle-Jamison Foundation.

Joan Brotherton will play the *Concerto in D Minor* by Edward MacDowell on Dr. Bidwell's program March 11, and on the 25th, Rhoda Nassar will play Beethoven's *Concerto No. 3 in C Minor*.

SALON OF PHOTOGRAPHIC ART

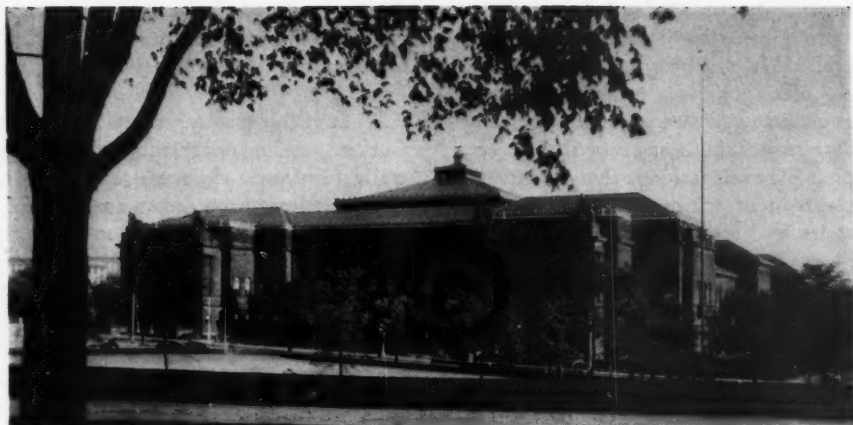
The 43d annual PITTSBURGH INTERNATIONAL SALON OF PHOTOGRAPHIC ART is scheduled for March 24 through April 22, with a preview the evening of March 23.

Color slides from the SALON will be projected in Lecture Hall two Sunday afternoons at 2:30 o'clock, on March 25 and April 1.

DECORATIVE ARTS

The new Hall of Decorative Arts, made possible by the Sarah Mellon Scaife Foundation, offers a representative selection of different types of art objects—ivory, wood, metal, pottery, and porcelain—drawn from the many different collections presented over the past sixty years to the Institute.

In the Treasure Room may be seen some thirty pieces of eighteenth-century Höchst porcelain, tableware and figurines, lent by Mr. and Mrs. Robert Carman Alberts.



NEW LEASE ON LIFE

THE lock of an ancient chest pictured on this month's cover might serve as a symbol for the present article. Our chest has been filled, and our diligent campaign workers and generous contributors may well take satisfaction in a vitally important project well done.

It is now possible to report the full success of the Carnegie Library and Institute Building Rehabilitation Fund campaign for a total of \$3¼ million. It will be remembered that, to begin with, the commitment of a grant of \$1½ million was obtained from the Carnegie Corporation of New York, on condition that a matching sum be raised locally. Then appropriations of \$375,000 were made by both the City and County, leaving a balance of \$750,000 to be raised by a public campaign. Review of the building's needs in view of increased costs indicated that the local campaign goal should be raised to \$1 million. It was on this basis that the drive was launched in June, 1955. The following represents collections and pledges as of February 15, 1956:

Carnegie Corporation grant	\$1,500,000.00	
City appropriation	375,000.00	
County appropriation	375,000.00	
Public campaign:		
Industry and Commerce	\$410,590.00	
Foundations	344,300.00	
Individuals	254,431.66	1,009,321.66
Total		\$3,259,321.66

On February 6, in recognition of the successful completion of the local campaign, the Carnegie Corporation turned over the final half of its full grant of \$1½ million to the Institute and Library. The Corporation had remitted \$750,000 upon commitment of an equal sum by the City and County last year. The City and County appropriations will come in three annual payments ending with 1958. Of the \$1 million-plus raised in the public campaign, 85 per cent is represented by contributions received, with 15 per cent represented by pledges to be paid.

Total expense of conducting the successful public campaign—office space, personnel,

printing and postage included—was \$8,018.85, or about eight-tenths of one per cent of the funds raised. It will be noted that the local million-dollar goal was exceeded by more than enough to cover expenses. This remains the most remarkable feature of the project, and its simple explanation is that a campaign organization of trustees and other civic leaders assumed upon themselves the responsibility of a cause in which their belief was deep and their efforts tireless and enthusiastic.

The response of industrial and commercial firms was most generous, indicating that today's employers hold the general cultural welfare of their communities in high regard. Educational and charitable trusts and foundations have lent their support to many worthwhile Institute and Library projects in recent years, and their response to the building-fund campaign was no exception.

The response of individual contributors was inspiring. While the drive could not provide for the expense of a broad-base public appeal, many unexpected contributions came in, and those friends of the institution who were contacted directly gave generously.

Over one hundred thousand dollars was contributed personally by members of the board of trustees.

More than 650 members of the Carnegie Institute Society gave to the rehabilitation fund in addition to their annual membership contributions.

Countless visitors, many of them children, dropped their spare change in the "treasure chest" set up in the first-floor corridor.

Careful use of rehabilitation funds is now under way. Architects and workmen are busy with plans, fabrication and transportation of materials for the huge reroofing project, scheduled to start in April for completion in the fall. Architect's plans and specifications for the change-over in electric power from

direct current to alternating current, and for rehabilitation of vast heating, ventilating, and mechanical systems also are being formulated.

What visible transformation will mark the work of building restoration? Renewed floors, walls, furniture and fixtures; and a new roof, visible at least from a distance. But for the most part, unseen reconstruction—comprising modern service systems and all other necessary features to insure the adequate protection and maintenance of the building and its priceless collections—will stand in testimony to the gracious generosity of friends and donors who have given Carnegie Institute and Library a new lease on life. —J. L. A.

A NEW TRUSTEE

PAUL F. JONES was appointed to the board of trustees of Carnegie Library of Pittsburgh by City Council on February 8, which automatically makes him a trustee of Carnegie Institute and Carnegie Institute of Technology. He succeeds Emanuel F. Schifano, recently named judge of Common Pleas Court, and will serve on the Museum committee.

A native of Kentucky, he has lived many years in Pittsburgh, studied at the University of Pittsburgh, and was graduated from the Law School of Duquesne University. He has served in the State Legislature, has been solicitor for City controller, member of the Board of Water Assessors, State Workmen's Compensation referee, clerk in County treasurer's office, and, the past two years, City councilman.

Mr. Jones served in World War II, is a board member of the Centre Avenue Y. M. C. A., and Allegheny Council Boy Scouts of America. He is a member of the Bicentennial Commission for the City of Pittsburgh, now making plans for 1958.

SOME SEASIDE LABORATORIES IN EUROPE

RALPH AND MILDRED BUCHSBAUM

LAST summer we had the happy experience of visiting five European marine laboratories, all of them flourishing again after wartime setbacks, which for some included severe damage.

At Roscoff, on the Brittany coast of France, is the largest of French marine laboratories. It is maintained by the University of Paris with a small resident staff of research workers throughout the year. In summer, as in all marine stations, including those on both coasts of the United States, there is a great influx of faculty members and of students from many universities, who carry on a summer program of research or study.

Most workers at Roscoff are from the French universities, though we spoke with a Swiss geneticist who was studying the hereditary variations of marine snail populations, and with a Viennese botanist who was examining the marine algae. To study the conditions under which algae grow, the young Viennese had applied a very modern technique developed in France. Not satisfied with the older method of looking at the algae from his boat, or of pulling them loose from the sea bottom, he climbed over the side of his boat dressed in a rubber diving suit and equipped with an aqualung. He could move about freely on the ocean bottom for about

an hour, examining the plants under the natural conditions in which they live.

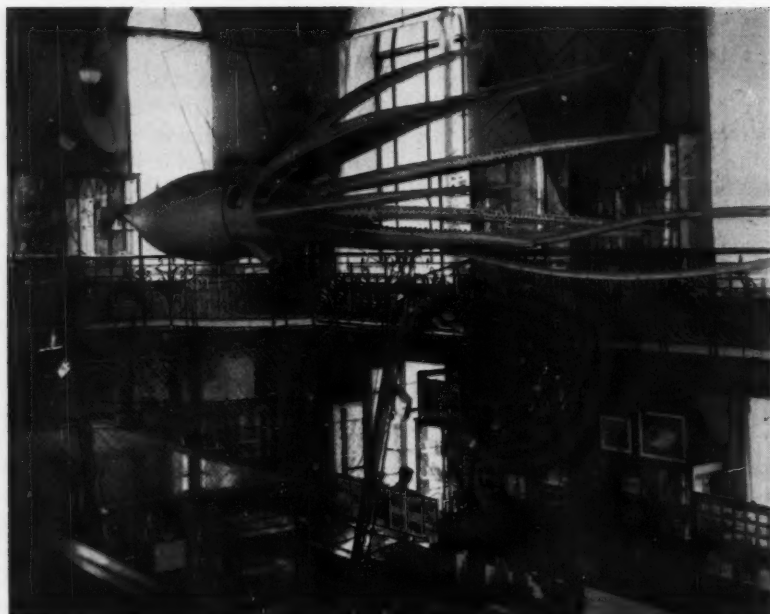
We expressed an interest in seeing the zonation of the seaweeds, and the accompanying animals of the tidal zone. Our botanist friend knew exactly where to take us to see the algae at their best.

Any seashore is a very special kind of place—the meeting ground of two very different worlds, land and sea. The plants and animals that live in the area alternately uncovered and then covered by the ebb and flow of the tides must adjust to a completely different environment at regular intervals. They experience every twenty-four hours all the changes other organisms would be exposed to over the seasons of a whole year. Within a space of a few feet, on a steeply sloping rocky shore, the animals and plants of the tidal zone show variations that we could see on land only by traveling hundreds of miles. In a few yards of rocky intertidal shore one will find animals belonging to a larger number of major animal groups than can be found in any other area of comparable size, marine or terrestrial.

In addition to all this, we had a rather special reason for wishing to see the shore at Roscoff. The preceding year, during preparation of the new Marine Hall at Carnegie Museum, one of us had helped advise the Museum staff who were constructing the diorama of a small portion of a rocky shore in New England.

Though the Channel coast of France is warmer than that of New England, and the species of seaweeds, barnacles, snails, and limpets are not all the same, the similarity in plants and animals is such that only a specialist can detect the differences. Anyone who becomes familiar with the orderly pattern of

Dr. Buchsbaum has been professor of zoology at the University of Pittsburgh since 1950, and before then was at the University of Chicago. He is author of *Animals without Backbones*, and is doing research on living animal cells. He is a consultant to the Museum on Marine Hall. A booklet by Dr. Buchsbaum, *The Life in the Sea*, published in 1954 by University of Oregon Press, is available at the Art and Nature Shop at \$1.50. Mrs. Buchsbaum, a zoologist in her own right, assists her husband in various writing projects.



MODEL OF A GIANT SQUID TAKEN FROM THE STOMACH OF A WHALE
DISPLAYED AT THE OCEANOGRAPHIC INSTITUTE AT MONTE CARLO

zonation of seaweeds and of animals at high-water mark, mid-water level, and low-water mark, will feel at home on any rocky shore in temperate regions, whether it be in Maine, France, England, South Africa, or our own West Coast.

The local topography and tidal situation at Roscoff are such that at low tide the water recedes for a very considerable distance, leaving an exposed area of several square miles and providing access on foot to several small islands. These islands provide exposed situations on their seaward side and protected ones on their landward shore and in the shallow areas behind the islands.

We made our way toward "Isle Verte" in ankle-deep water through a varied display of algae. The abundance of delicately branched green, and especially of the red algae, told us

that the area is effectively sheltered by the island from the full impact of the surf. Only the tougher brown algae can take much wave action, and we were to see more of the browns on the exposed seaward side of the island. There red algae live only in the deeper water below low-tide mark.

The hazard of any extensive tidal area is that, though the water recedes slowly, luring one farther and farther out, it returns at a good pace, sometimes that of a brisk walk. Anyone as weighted down with camera equipment as we were is well advised to start for shore before the tide turns. We had carefully consulted the tide tables beforehand to make sure we knew exactly when to time our return. We had not, however, taken into account the delay in getting our children off the seaward beach of another smaller island,

where they were gathering armfuls of a strange treasure. We spent a worried few moments until they finally came to us, through the rapidly deepening water, holding aloft their collecting-basket piled high with large cuttlebones. The discovery that cuttlebones are not some kind of product made only to sell in bird-supply shops, but are really cast up on beaches adjoining waters in which cuttlefishes abound, was a vivid experience they will never forget.

After depositing our collections of animals and seaweeds in tanks of running sea water in the laboratory, we all changed into dry shoes and then went to the aquarium maintained by the station for displaying living marine animals to the public. There we watched two cuttlefishes swimming about in a tank in jet-propelled grace, by squirting water through a fleshy tube under the head. The rapid blushing and fading of the color of an excited cuttlefish is an unforgettable sight. The vivid pink, yellow, orange, and purple colorings of marine animals, such as the feathery sea stars, anemones, and many of the other coelenterates, are hard to believe even when seen.

From Brittany we went southward to the Mediterranean coast of Spain, stopping at Blanes, a small seaside town not far from the French border, to see the site of a projected Spanish biological station. At Blanes, under supervision of zoologists of the University of Barcelona, there will be a new center for the study of fisheries problems in the Mediterranean. At the moment, the most acute problems being studied at Blanes were those relating to the size of the sardine catch and the damage inflicted on sardine nets by dolphins. The major Spanish marine laboratory is at Vigo, on the Atlantic coast, and there the problems are much like those on our southern California coast: the annual sardine catch and sporadic outbreaks of "red tide"

caused by the sudden growth of a flagellated protozoan.

Not far north of the Spanish border, on the Mediterranean coast of France, is the little town of Banyuls-sur-mer, where the University of Paris maintains its laboratory for the study of the Mediterranean fauna. The Laboratoire Arago is named for a great French physicist who was also a statesman during the first half of the nineteenth century and who did much for the advancement of all French science. His statue can be seen in the nearby city of Perpignan. The imposing bronze seated figure on the rocks to the seaward side of the laboratory is that of Lacaze-Duthiers, a great zoologist and teacher who founded the station at Roscoff in 1872, and that at Banyuls-sur-mer in 1881.

Just inside the entrance to the laboratory is a large plaster reproduction of the Venus of Milo, which struck us at first as being a peculiarly French touch. In an English or American laboratory such a spot would more likely be occupied by a stuffed shark or a portrait of a bearded scientist. We learned later, however, that the Venus of Milo came into the possession of the French after it was called to the attention of the French ambassador at Constantinople by a young French scientist. He had seen it unearthed while making a hydrographic survey of the Mediterranean in 1820.

At Banyuls there are only the insignificant tides characteristic of the Mediterranean. There is no tidal zone worth study, but from the laboratory dock one can look down into waters particularly rich in delicately branched red algae and filled with sea anemones and with sea urchins that would have to live much farther out if there were a greater tidal movement. A laboratory boat brings in supplies of animals for the investigators. One of them happened to be a well-known American zoologist, Mathilda Brooks, who was

working on developing sea-urchin embryos. As at all European marine stations, there is an excellent public aquarium where we made photographs of many of the Mediterranean invertebrates.

We shall remember Banyuls-sur-mer as much for the tasty steamed mussels and the delicious baby octopuses we ate there, under a lovely pergola, as for the mussels and pinhead-sized, just-hatched octopuses we photographed in the aquarium.

As we drove along the French Riviera on our way to Italy we stopped at Monaco, best known to the world for its Casino at Monte Carlo and for its ruling Prince. We passed up both to see the Oceanographic Institute, founded by the present Prince's great-grandfather, Prince Albert I. Prince Albert was one of the founders of the science of oceanography and is best known for his capture of the first giant squids, which up to then had eluded all

nets. He went after the whales that fed on such squids and obtained his specimens from the stomachs of the whales. Much of his oceanographic gear, especially his large nets, and also his collections of apparatus and of marine specimens, are now housed in a marine museum that was well worth our visit. The Institute itself was disappointing. Prince Rainier is either uninterested in the program of research carried on in the past, or is financially unable to support it. At present there is only one resident zoologist, a student of fishes. The public aquarium is large and very well attended, and the admission fees apparently are the only support of aquarium, laboratories, and museum, which are all housed in a fine building that looks out on the Mediterranean.

Our last marine station on the continent was the one at Naples, which was international at its inception in 1872 and has re-



Photos by Ralph Buchsbaum

THE MARINE BIOLOGICAL LABORATORY AT PLYMOUTH, ENGLAND

mained so. Founded by Anton Dohrn, a German, who spent a great deal of his personal fortune to get it started, it has now been taken over by the Italian government, though it receives considerable support in contributions from most European countries and the United States. The directorship has been passed down through three generations of the Dohrn family. The founder's grandson, Peter Dohrn, has taken over from his father, Reinhard, who was still in charge when one of us visited in 1953. We did not meet Peter; he had just left for Woods Hole, Massachusetts, to visit the marine laboratory there, one of the largest of the many American marine laboratories that dot both our coasts.

At Naples there are almost always to be found German, Swiss, French, Italian, English, and American workers, and frequently others. It is a particularly well-integrated group of scientists, who seem seldom to leave the laboratory and who find their social life with one another. Some of them, as is true at all marine stations, were not studying marine animals at all. They were doing research on fresh-water hydras and planarias in a laboratory that looks out onto the blueness of the Bay of Naples and the rosiness of Vesuvius in the evening sun. Nothing could be more conducive to a happy working life for a scientist, and no one we met there seemed to talk of leaving. On the ground floor there is an excellent public aquarium, and no visitor to Naples should miss it.

In England we spent much of our time, when we were not at Cambridge, visiting many seaside communities of Cornwall and Devonshire. Some of them were familiar to us from many years of reading the scientific literature describing the studies made on the intertidal areas in such places as Trevone, on the Cornwall coast, and Wembury, on the Devonshire coast close to Plymouth. At Plymouth is the laboratory of the Marine

Biological Association of the United Kingdom. It was opened in 1888. It is the largest and most active of all European laboratories and world leader in the important studies of the "productivity" of the sea that are beginning to occupy us more and more in our American laboratories. At Plymouth there is a large, permanent, year-round staff, and as a result, the knowledge, especially of a quantitative nature, of the English Channel coast is probably more detailed than for any other marine area in the world. The library is perhaps the best marine library in existence. The public aquarium is outstanding.

Plymouth harbor no longer plays the dominant role in English affairs that it did in the days of Drake, or when the Pilgrim fathers were sheltered there in an inn (now a gift shop) that still stands beside the wharf. The inn is surrounded mostly by rubble left by devastating wartime bombing. Southampton is now the harbor that receives the large Cunard Line ships, but the French Line and others do dock at Plymouth, and it is well worth anyone's time to visit the aquarium and laboratory on the harbor front.

LOOKING AT MODERN ART

THIRTEEN half-hour television programs by Gordon Bailey Washburn on "Looking at Modern Art" will be shown by WQED Wednesdays at 9:00 P.M., beginning March 14. Topics are as follows:

INTRODUCTION: THE MAIN THEME
 INSPIRATION OF THE MACHINE: THE WORK OF LÉGER
 THE WORK OF GEORGES ROUAULT
 THE RELIGIOUS THEME: ROUAULT AND MANESSIER
 EARLY CUBISM
 THE FULL DEVELOPMENT OF CUBISM
 DADA AND SURREALISM
 TWO SURREALIST GALLERIES
 EXPRESSIONISM AS HANDWRITING
 THE EXPRESSIONIST MOVEMENT
 DEFINING PRIMITIVISM
 FACETS OF PRIMITIVISM

SIR HENRY RAEBURN

WATSON R. VAN STEENBURGH

MARCH fourth marks the bicentenary of the birth of the most eminent painter produced by Scotland, Sir Henry Raeburn (1756-1823). It is fitting to note this anniversary in Pittsburgh; four representative examples of his portraiture hang in Gallery A of the Department of Fine Arts, two of them gifts from Mrs. J. Willis Dalzell in 1925 and 1926, the third a gift from Mrs. J. O. Burgwin and B. F. Jones III, in 1942, and the fourth a recent loan to the Institute by Baroness Cassel van Doorn.

Born in Stockbridge, then a suburb of the rapidly expanding city of Edinburgh, Henry Raeburn and his older brother William were left orphans when Henry was four or five years old. The brother continued his father's business of yarn-boiling and milling, and provided Henry with a good elementary education, part of it at Heriot's Hospital, an Edinburgh school. At the age of fifteen he was apprenticed to the goldsmith Gilliland; after a period of training in this ancient craft, he began painting with oils. His sympathetic master in the goldsmith's art introduced the youth to David Martin, then the most successful portrait painter in the capital.

A romantic marriage to a widow with a comfortable fortune when he was twenty-two did not deter the young painter from diligence in his chosen career. In 1785 he followed the contemporary practice of going to Italy to see at firsthand works by Renaissance and later masters, settling with his wife in Rome for a stay of eighteen months. En route to Italy he visited Sir Joshua Reynolds in London, was advised by him to study with especial attention Michelangelo's paintings in the Sistine Chapel. The story is told of Sir Joshua's kindly offer to provide him with

financial aid, an offer courteously declined.

After Raeburn's return to Edinburgh in 1787, he launched upon a most successful career as portrait painter, having among his sitters all the pre-eminent Scots of the age. Every honor bestowed on outstanding members of the profession came to him. He was elected president of the Society of Artists in Edinburgh in 1812. In 1814 he was made an associate, the next year a full member of the Royal Academy. While on a visit to Scotland in 1822, George IV conferred knighthood on Raeburn and shortly afterward appointed Sir Henry His Majesty's limner for Scotland, an honor he was to enjoy only briefly before his death on July 8, 1823.



LADY TURING

Given by Mrs. J. O. Burgwin and B. F. Jones III
In memory of Mrs. B. F. Jones, Jr.



ROBERT COLT OF AULDHAME, M.P.
AND HIS WIFE LADY GRACE
On loan from Baroness Cassel van Doorn

The two portraits in the J. Willis Dalzell Memorial Collection are a bust of Thomas Miller of Edinburgh and an imposing life-size full-length painting of John Harvey of Castle Semple. Both demonstrate Raeburn's ability to catch likeness, an ability for the most part more successful with his masculine than with his feminine sitters. The portrait of Miller shows his typical, restricted palette. Color is confined to the complexion tints and the penetrating blue eyes of the white-haired gentleman. The costume, including the white stock, is treated broadly, a heavy gold chain against the waistcoat the only ornament. The background is neutral, a drab olive tone, becoming darker behind the white head.

The portrait of John Harvey is an impressive presentation of a dour, elderly laird of

serious but not unkindly mien. As in a number of other large-scale subjects, Raeburn presents him before a sturdy tree and craggy landscape, with a view across a stream toward a distant highland landscape. Raeburn is not a nature painter, but does succeed in suggesting the domains of the master of Castle Semple, who wears a riding habit and carries a crop in his bared right hand, his silk-lined black hat and gray glove in his left hand. Again Raeburn has used little color.

The portrait of Lady Turing, given by the children of Mrs. B. F. Jones, Jr., as a memorial to their mother, is a three-quarter-length treatment of the subject, done shortly after her marriage in 1797 to Robert (later Sir Robert) Turing. As in the *John Harvey*, there is an outdoor setting, autumn foliage and cloudy sky as a sort of backdrop for the graceful figure of the standing, simply-garbed lady, her wrap-enveloped left arm resting on her hip, the right hand posed over the wrap on what seems to be a pedestal supporting an urn. This painting is one of several refutations of the criticism that Raeburn could not paint women successfully.

The double portrait of Robert Colt of Auldham, M. P., and his wife Lady Grace (nee Miss Dundas, daughter of Lord President Dundas of Arniston), also given three-quarter-length treatment, is on loan to the Institute from Baroness Cassel, together with other objects from her collection. The couple, married in 1778, are presented in more elegant fashion than the other subjects in the gallery, somewhat akin to contemporary English renderings belonging to the curtain-and-column school. Raeburn's color here is rich, and his use of light, dramatic. Lady Grace, like Lady Turing wearing a simple white gown of the period, is shown seated, holding gold-rimmed spectacles clasped in her hands, which rest on her lap. The treatment of her hair and

(Turn to page 104)

Mr. van Steenburgh is assistant professor in the Henry Clay Frick Fine Arts Department of the University.

MAILED AT THE CAPE OF GOOD HOPE

RICHARD C. WITT

IN 1519 Sir Francis Drake became the first Englishman to see the southern tip of Africa, now known as the Cape of Good Hope. About four hundred years later J. Frank Drake, of Pittsburgh, began to collect the stamps of the Cape of Good Hope. After years of collecting and studying these fascinating stamps, Colonel Drake, retired chairman of the board of directors of the Gulf Oil Corporation, presented his magnificent and valuable two-volume collection to the Carnegie Museum in a brief ceremony in the office of M. Graham Netting, director of the Museum, on December 29, 1955. Colonel Drake has long been active in the stamp world, being a life member of both the American Philatelic Society and the Philatelic Centurions of the Carnegie Museum.

The Cape of Good Hope has had a most interesting philatelic history. Early in the seventeenth century large stones were placed over postal letters left by English ships that had stopped there for water and fresh meat. These letters were picked up by other ships traveling in the direction the letters were to go. Some of these stones, inscribed with the names of the ships that put them there and date of arrival and departure, are still in existence in the Cape Town museum. This was the beginning of postal service at the Cape of Good Hope.

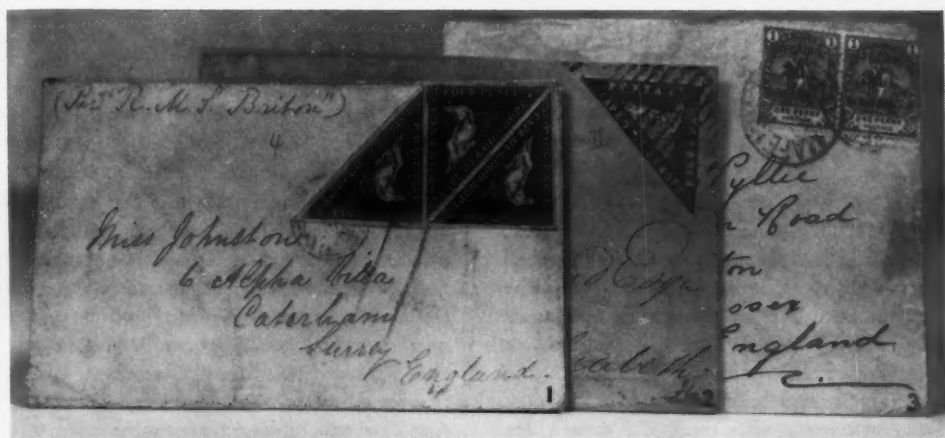
The Cape's first issue of postage stamps, the famous Cape Triangles, was put on sale September 1, 1853. These were the world's first triangular stamps. Colonel Drake's presentation contains over one hundred and thirty of these famous stamps on the original envelopes—"covers," as the stamp-collectors call them. Cover No. 1 in the illustration shows a rare usage of a strip of three of the

first-issue, four-pence, blue triangles on a cover to Surrey, England. The postage rate from the Cape to England in 1853 was one shilling per half ounce if carried by fast packet or mail boat, and eight pence by regular commercial vessels. Thus, this letter must have gone by fast mail boat—"fast" meant then about one month to six weeks from Cape Town or Port Elizabeth to Liverpool.

In 1861 the famous woodblocks came into existence. Before this time the stamps for the Cape had been printed in London, but because a bill of lading was lost, and supplies of stamps did not reach the Cape Town post office, a local printing was authorized. The regular stamps were in a warehouse in Cape Town, but no record was on hand to show where they were. The postmaster, seeing his supply dwindle, requested and received permission from London to print stamps to be used until the regular ones were again available. Sixty-four stereotypes of each value, the one-penny red and the four-pence blue, were made and placed on wooden blocks to form the printing plate. That is how the name "woodblocks" originated. Cover No. 2 shows an extremely rare shade of the four-pence woodblock, used on a local cover to Port Elizabeth. Colonel Drake's collection contains six of these rare four-pence woodblock covers.

These early triangle stamps were all without perforations, an inconvenience that made it necessary to cut them apart with scissors.

Mr. Witt has been an active stamp-collector for more than twenty-five years. Saturdays he acts as librarian of the Museum's stamps and postal-history section. The rest of the week he is a buyer for the Pittsburgh Steel Company.



COVERS WITH CAPE OF GOOD HOPE STAMPS: 1. FIRST-ISSUE, FOUR-PENCE, BLUE TRIANGLES; 2. RARE FOUR-PENCE WOODBLOCK; 3. STAMPS OVERPRINTED WITH "MAFEKING BESEIGED."

Because perforating machines that would work on three-sided stamps were costly, it was decided to make conventional rectangular stamps and perforate them on existing machines. Thus, on May 5, 1864, the Cape Triangle era came to an end, although the stamp was still valid for postage until 1900.

Throughout the early history of South Africa there was unrest, strife, ill will; and even open warfare between the original Dutch settlers and the English, who came shortly afterwards. The largest of these wars started on October 11, 1899 when the Dutch peasants, or Boers as they were commonly called, invaded Natal. During this war, which ended with the defeat of the Boers and the signing of the Peace of Vereeniging on May 31, 1902, seven places were besieged by the Boer forces.

Mafeking, a city of several thousand inhabitants, was one of the places held under siege. For seven months, November, 1899 to May, 1900, Lord Baden-Powell, later founder of the Boy Scouts, successfully defended the town until relief forces arrived. During the period of the siege, mail was carried through

the enemy lines by runners who went either north through the jungle to Bulawayo, Rhodesia, or south to Kimberley. From these places the mail was delivered through regular postal services. Cover No. 3 is one of the two siege covers in the Drake collection. This letter was mailed from Mafeking with stamps overprinted "Mafeking Besieged."

The period after the Boer War was relatively calm as far as Cape of Good Hope postal affairs were concerned. To administer their colonies in a more efficient manner, the British combined their South African possessions into the Union of South Africa. On May 31, 1910, the Cape of Good Hope was swallowed up by the new Union, and thus came to an end a most interesting postal history.

IN YOUR MAIL

YOUR mail will soon bring forms on which the Institute invites you to list candidates for Carnegie Institute Society membership. Increase your enjoyment next season by helping the Institute enroll your friends!

THE AFRICAN GIANT

Commenting on three recent books

SOLOMON B. FREEHOF

IN recent years we have had some remarkable novels about China, such as Pearl Buck's *The Good Earth* and *Peony*. We have had fine novels about India, *Come, My Beloved* by this same author, or Somerset Maugham's *Razor's Edge*. We have had strong novels about Africa too, *Cry, the Beloved Country* or the autobiographical book by Peter Abrahams, *Tell Freedom*. But why especially these three lands? Why not also Afghanistan, Iran, and Syria?

The fact is, we have a kinship with these three countries, one that interweaves itself into American life and whose strands reach into every American town and every American church. These three are the countries to which young, idealistic men and women have gone as missionaries. It is on behalf of these countries that countless women's organizations in small towns have gathered to sew dresses or wrap bandages or to collect money. It was from these countries that special tidings came when the local church's own missionaries returned, on a special Sunday, and spoke to the congregation. The countries in which many of our modern novels are set are the three missionary countries.

The American missionary mood that wove the kinship with those countries has maintained itself remarkably for a hundred years. It is remarkable because the original impulse for the missions faded. The original impulse was theological, conversionist. "The heathen in his blindness bows down to wood and stone" and needed the light we had to save him from his paganism. But that creedal, theological impulse has tended to fade in the last century. People have been less certain

about creedal differences and less sure that converting an Indian from one creed to another was essential to his welfare.

But when religion in general changed its emphasis from theology to sociology, the missions changed. Whereas at first they existed only for conversion, they now became educational and all of them had mission schools. And then they changed to mission hospitals. Then there was a change to agricultural guidance, with mission agriculture schools. In other words, the missionary impulse had the vitality and the skill, for a whole century, to adapt itself to the changing intellectual climate.

The American churches, as far as their own feelings were concerned, were to these three countries as parent to child. It was a family feeling and, as in a family, an intelligent parent changes the mode of his guidance according to the growth of the child. When a parent is skilled enough to be resourceful, he changes his language from commands to suggestions, according to the variation in the growth of the child. That is when a family is at peace. There has been such peace, based upon changing approaches, for about seventy-five years in this missionary-parental relationship.

But as often happens in a family, outside forces begin to make inroads into this kinship, and also the inner forces of sudden growth in adolescence begin to make former relationship difficult. The child has other contacts now, and companions who are listened to more attentively than the parent. Thus the missions had to face, unwillingly, other forces. The cynical statement used to be,

"After the Bible comes the flag, and after the flag comes the businessman." In other words, in many a land the missionaries were pioneers with true idealism, but then followed the empire-builders, the administrators who imposed a colonial rule over these native people. Then followed the concessionaires who developed industry and generally used the native people as raw, human material. This sequence has created resentment, bitterness, and hatred. There were other outside interests and influences. Nowadays Russia is everywhere. Wherever there is discontent, Russia works, taking up the slogan of every land's wish as if it were the true wish of the Soviet regime. Is it nationalism that you want? Is it anti-colonialism that you want? Russia becomes the voice of nationalism and anticolonialism.

Thus there have been rebellion and strife in the family relationship. And when a family gets to the point of contest, of bitterness, it becomes the subject for a novel, for no novels can be written about a contented family. The American people is interested in the theme. It wants to know what has happened. We thought we had been so generous. We meant so well. Why do they now hate us so? What is the reason for this bitterness? The question is raised in bewilderment and hurt, and, therefore, we want to read about the new states of mind of these people. Hence the recent novels about China, about India and Africa.

The old family tie is finally broken as far as China and India are concerned, and there

This article is derived from one of Dr. Freehof's book reviews given at Temple Rodef Shalom last autumn. Dr. Freehof has recently been cited by the Pittsburgh Newspaper Guild: "As an orator, the Rabbi of Rodef Shalom Congregation is without a peer, as the 'tens of thousands' who have listened to him over the years will bear willing testimony. His nonsectarian book-review discussions have brought a new vision of the worth of good literature to a multitude of Pittsburghers."

will be no novels about them for a while. But Africa is still with us, and the tension there is now great. Bitter words are heard, and hatred flames. The American reader wants to know what has happened and why. So much affection was bestowed by England and America and idealistic churches upon that continent. Why is the white man hated? The sense of being personally involved, the sense of vague guilt, the sense of being unfairly responded to, move us. So we all want to know about Africa.

That explains why there are three best-sellers on the same theme—three books on Africa, and all three best-sellers, simultaneously. The latest one is John Gunther's *Inside Africa*. The one some weeks earlier is Cloete's *The African Giant*. The first of the successful best-sellers of this season is Robert Ruark's *Somewhere of Value*. Each book does something different.

You know what the "Inside" books are like. Gunther always provides a remarkable summation. He seems to cover almost every important group of data. *Inside Africa* is by far the most complete of these three books.

Stuart Cloete is himself of a Boer family, from the Transvaal. He has written a number of successful books, perhaps the most successful of which is *Rolling Wheels*, the story of the great northern trek of the Boers a century ago. His book, *The African Giant*, does not include Moslem North Africa but is concerned only with Black Africa. He does not even discuss his native South Africa. His story begins north of South Africa and ends south of the Sahara. It is not so complete as Gunther's book, but it is deeper. He understands the people intimately. He grew up with them.

As for Ruark's book, *Something of Value*, it is a novel and is neither so complete nor so thorough as the other two, but it is deeply disturbing. It is a rather horrible book. It tells in bloody detail all the brutal mutila-

tions and murders committed by the Mau Mau in Kenya and all the counterbrutality by the white settlers. It ends with the white "hero" preserving the baby of the black "hero," whom he has just killed. Evidently Ruark concludes with this incident in order to end his book with some sort of hopefulness. The only hope is the dubious one, confessing that we cannot do anything with the present generation; maybe we will be able to do something with the next. Unfortunately, as an English administrator said to John Gunther, "If we had a half century we could do a great deal of good here," then added, "but we are not going to have a half century. There will not be any white men left in Africa in a generation."

But why should the white-black relationship in Africa be so hopeless? When it began, the first real contact of Africa with the white race, except for the peripheral contact with Portuguese navigators, was an idealistic one. The development of the missions was in no sense a degeneration. The missions moved on from Livingston, who was great enough, and have climaxed in Schweitzer, perhaps one of the greatest men living in our day, who, in the heart of the French African jungle, conducts a mission hospital and a school and a chapel. His is one of the finest minds of the modern age. The century-old mission effort from Livingston to Schweitzer has been nobly motivated and often effective.

Of course much that was attempted has failed, and it is the reason for failure that must be considered. The original conversion of the Africans reached a few, and did not reach deeply with many. On the contrary, Christianity, grafted onto the primitive carelessness about human pain, unwittingly provided some tribes with methods for fantastic torture. The Fulani in the North have simply borrowed from Christianity a new way of torturing—they crucify their victims.

Even the mission education has not done too well; because what is the good of educating a recently primitive people, getting college degrees for some of them, when there is not enough work in which they can use their enlightened minds? In fact, the training of a nonworking group of educated people is a frequent source of bitterness. That, too, had happened in India. Many went to universities, many graduated, and there was nothing for them to do. It was from these embittered intellectuals that most of the radicalism began.

So even the education that followed the older emphasis on conversion ended largely in futility, in a sense of being thwarted and misled. All that is best described in Cloete's book, *The African Giant*—the empty hands of the educated Africans. They had felt that education was the key to becoming white in status. They did not realize that a degree is the beginning of a life work, not the attainment of a final goal. They are now embittered intellectuals of Africa.

As for the industrialization, it was bound to come. Africa happens to be one of the richest lands in the world. There are most of the world's accessible uranium, almost all the world's diamonds—the most concentrated and convenient form of wealth, three quarters of the world's gold, not to mention other products, such as palm oil and other essential raw materials. The poor Africans are cursed by the fact that their land is so rich.

Their wages are much more than they could ever have dreamed of, but their tribal life has been destroyed. They are brought to the cities and live in the slums. It is about these slum-dwellers that Paton wrote his sad book, *Cry, the Beloved Country*. Unfortunately they do not know how to cope with industrial life. The Africans in their primitive life needed no possessions except, perhaps, a spear or a stick with which to scratch the ground. Everybody was taken care of by the tribe. Now we

have broken up the tribes and created these huge shantytowns around Johannesburg and the other cities. No wonder there is crime and bewilderment. We are forcing people into a life for which they have no historical preparation.

Experiments for betterment have been made by the various, well-intentioned, colonial countries. Some of them are apparently helpful, yet even these are most dubious of lasting success. The most successful one seems to be in the Gold Coast, where the British are preparing the natives for self-government. There is a famous black prime minister, Nkrumu. But most of the Negroes seem to be terrified of black self-government. The old tribal hatreds, the old blood lusts, now more or less controlled, will from time to time break out. Even in an ancient civilization like India's, the moment the British left, at least a quarter million Hindus and Moslems were killed in the initial battles between them.

It seems to be a hopeless situation. Shall the white man leave? He left India, he left China, why not leave Africa? But there is a clear difference as to Africa. When white rulers left India and China, they left whatever was created to a cultured people who could use it. If they leave this vast wealth of Africa, there is no one to whom to leave it, no one who can use it. Since modern world history abhors a vacuum, everyone knows who will enter into that tempting continent and take it. It will be Russia. So why leave it only to be picked up by Russia?

Besides, white men lived in India and China in a few sections of cities, were just colonials. But in Africa there are two areas that are their homes! The Boers—the Dutch, the Afrikaners—have lived in South Africa for a century and a quarter, as long as white people have lived in some parts of America. What of the British in Kenya for a half a century, who carved their homes out of the

wilderness? How can we say to them, "Leave."

The British, the Dutch, the French, the Portuguese, the Belgians could leave West Africa, where the white people are not a half of one per cent of the population, where they are merely administrators. But Kenya and South Africa are white people's homelands now. They cannot very well leave. They will have to stay in this atmosphere of hate; and they hope they will be able to cope with it.

Albert Schweitzer was asked whether white men have the right to impose their rule over a primitive people. He said, "No, they have no right if the purpose of the rule is to exploit them. But they have a right and have a duty if the purpose is to educate them up to a happier life, under their own government." The latter is clearly the purpose of a dozen different experiments all over Africa. These experiments should be continued. It must be understood, however, that none of them will be conducted in the spirit of family friendship, of older brother helping the younger. There is too much bitterness inherent in the situation, rooted in the mistakes of the past by the whites—inherent in the natural, thoughtless cruelty of this strange continent, intensified also by the conscious fomenting by Soviet agents who are everywhere. The atmosphere is a bitter one. But it is the duty of the white man to live through it as long as the intention is decent.

There is a large variety in the experimentation. There is the experiment in Portuguese Africa. The Portuguese seem to have no objection to mixed blood. It worked well for them in Brazil and they are doing exactly that in Portuguese Africa. The Belgians have an entirely different idea, namely, that the Africans need material comfort most of all. In the Belgian Congo there are no political rights, but there is a constantly rising standard of living. The French, in Equatorial Africa, are not so efficient, economically, as

the Belgians, and the level of living not half so high, but the French declare that everyone, black or white, is a citizen of France. So there is a satisfying political status. The English are not so much concerned with declaring immediate political equality as with actually training the Africans to self-government, and in the Gold Coast considerable success has been attained in certain areas.

At all events, the responsibility exists and the duty is clear; and the white men, decently motivated, should not lose heart. After all, the job is harder in Africa than it was in India and China. In India and China the white men met a cultured world, an old civilization, with ancient arts and crafts. But it was a different sort of a world the white man saw when Livingston discovered Victoria Falls.

It is hard to believe that most of black Africa was actually in the Stone Age. The tribal African, except for one Western area, had no transportation, never rode on the back of a beast, never tamed a single animal to domestic use, had no tools worth speaking of, never knew what it was to work and earn money for a living. Each person was taken care of by the tribe. What is most remarkable, the African had no sense of organizing the flow of time, no sense of months or seasons except a vague awareness, no sense of the hours. It would have been impossible for an African, seventy-five years ago, to conceive the thought, "half past two, January the sixth." In other words, they were people who lived in the Stone Age.

That is no disgrace. Culture develops at various rates, but the fact is we have no record of any European people who were as primitive (at least no written record, except perhaps the scratchings on the caves in southern France) as were the Africans, a hundred years ago. Then why should it be surprising that bloodshed and horror and voodoo still dominate their lives? And we

should not have expected to do too much, in a difficult time such as this, with a people whom we recently dragged out of the Stone Age.

The chief encouragement to the whites in Africa should be the greatest Negro experiment ever undertaken in human history: the ten million American Negroes. The same people, brought out of the same Stone Age, have in a hundred years turned into a law-abiding, creative group, producing scientists, poets, leaders. Of course, it is a different thing to develop ten million Negroes in a world that is dominately white, where they have the protection of the laws and opportunity at every hand. It is a different thing entirely, when there are three million whites among one hundred fifty million Negroes on the African continent. Yet although the American experience is not the same thing, still it is a successful experiment.

Too much has been tried in Africa, too fast. There is a storm of bitterness yet to be lived through in this troublesome time. But much can be done with patience and through devotion. The work of brotherly friendship and beneficent intention begun one hundred years ago is not entirely lost. The family of man in Africa is in a mood of furious strife, but that can be endured. Certain experiments such as the apartheid, or separation, in South Africa will have to be abandoned. Other experiments will have to be extended. But given decent intention, patience, and hope, we may yet prove that inside Africa there is, in the African giant, something of abiding value.

BOOK OF JOB

TWENTY-TWO line engravings by William Blake (1757-1827), the English mystic artist-poet, continue on display through April 12. These are illustrations of the Book of Job, from the permanent collection.

SERVITUDE IN EARLY ALLEGHENY COUNTY

ELLA CHALFANT

As the sentiment against Negro slavery increased, there was a demand for white servants in western Pennsylvania. A substitute form of service seemed to be necessary to carry on the work of farmers and mechanics. Some people went into voluntary servitude for their debts; others, wandering around without giving a satisfactory account of themselves, were often seized on suspicion as runaway servants. If nobody appeared to free them, they were advertised for sale to pay prison charges.

Another form of white servitude was the redemption system. When ships docked at Philadelphia, their captains or city merchants usually placed advertisements in the newspapers describing passengers for sale, giving their nationality, age, sex, and the kind of service for which they were fitted. In this way, many an immigrant established himself in the new country and came west.

Parents and guardians bound out children to serve under indenture, but orphans were bound out, more often, under court order.

Sale of a servant was to the purchaser and his heirs or assigns, so that servants frequently changed masters. Many of them ran away because of discontent or their own restlessness. Advertisements in the newspapers described their apparel when last seen, but if runaways traveled in groups, clothes (usually castoffs of their owners) were interchanged to confuse pursuers.

General James O'Hara, who doubtless owned many servants, frequently advertised for runaways. The descriptions of their appearance and attire provide interesting sidelights on the customs of his day. Here is one of his advertisements, from the February 23, 1787, issue of the *Pittsburgh Gazette*:

ONE HUNDRED DOLLARS REWARD

Ran away from the subscriber, on the 11th of October last, an indentured Irish servantman, named John Buchanan, about 26 years of age, 5 feet 3 or 6 inches high, black complexion, of a very effeminate appearance, short black hair, speaks with the brogue, is very pregnant with little artifice, and a notorious liar, had on a blue broad-cloth coat, with yellow buttons, moleskin jacket, black breeches, and a large cocked Castor hat; took with him two horses, one black, 15 and an half hands high, with a small star, his left hind foot white, marked on the right buttock U.S., almost worn out; the other a bay; he carried a case of holster pistols and a fuse; endeavored to change the horses in the Allegheny Mountains, on his way down the old Virginia road; he had then in company with him a young woman, whom he passed for his wife; he was bought of Jeremiah Warder, Parker & Co., in Philadelphia, on the 27 of May, 1784; says he was born in Cork, and is a glovemaking. As he had access to a large store in Pittsburgh, it appears that he has carried off a considerable sum of money and other valuable property; it is therefore expected that he may escape to Ireland; should this be the case, the above reward shall be paid to any person that will have him apprehended, so that he may be brought to justice, and a reward of Forty Dollars shall be paid to any person that will have him taken up and secured in any workhouse or prison in the United States, so that his master may get him again, or that will deliver him to General Febiger, in Philadelphia; Walter Roe, in Baltimore; Michael McKown, in Martinsburgh, Virginia, or the subscriber in Pittsburgh, and all reasonable charges.

Like Negroes, indentured servants were bought and sold on the market. An example of the practice is seen in this advertisement:

TO BE SOLD

(for ready money, only)

A German woman servant, she has near three years to serve; and is well qualified for all household work; would recommend her to her own country people, particularly as her present master has found great inconvenience from not being acquainted with their manners, customs and language. For further particulars, enquire of Mr. Ormsby's, in Pittsburgh.

(PITTSBURGH) MAY 20, 1797.

The redemption system brought a few trained minds, as well as trained hands, to America, and some of these may have found their way into western Pennsylvania. After being freed under the terms of their indentures, such servants would make a valuable contribution to the citizenry. Importation of foreign servants dropped during the Revolutionary War, and gradually redemptioners disappeared from the market. However, there were still a number of children who had been sold out to service for long terms—not because their passage had cost so much, but because parents or guardians took the obvious way to avoid responsibility for them during their minority. The servitude of children is frequently mentioned in our early wills. For example, Isaac Greer, of Elizabeth Township, in his will (recorded July 30, 1809) left to his wife:

My right and title to the indented children, Mordecai and Phoebe Price—said children to be fed, clothed, schooled, and freedomed, according to Indenture, by my son Jesse. I also will that Mordecai serve my son Jesse when my wife may not require his services.

There was little initiative permitted for young people in early Allegheny County to choose their own life's work. It was a period of indenture or apprenticeship. Boys were bound out as apprentices to tradesmen, and girls were placed in families to learn house-keeping arts. The following excerpt shows one father's faith in apprenticeship training for his five sons. It is taken from the oral will of Richard Tettrington before he died on his job as artificer at Presque Isle, January 26, 1797:

I do hereby constitute and appoint Mr. James Gossman of the City of New York, Master Carpenter, the sole Guardian of my youngest children—the eldest of whom, namely, John, I wish bound out as an apprentice to a Shoemaker; the next, namely, Adam, to be bound apprentice to a Tallow Chandler, and Matthew to be also apprenticed to a Taylor. And I further desire the sum of \$340 of which I die possessed and all the wordly property I am now worth except as hereafter excepted (which

property is to be converted into cash in the manner hereafter mentioned) to be remitted with convenient speed to said Mr. Gossman, to be disposed of as follows—namely to apply as much thereof as he shall deem necessary to cloath and apparel in a decent manner said John, Adam, and Matthew, previous to their being bound out as apprentices, and the residue or remainder of said money to be applied towards the education and maintenance of my youngest son Richard in order to prepare him for some trade or profession. . . . To my oldest son, Joseph, whom I have bread up as a carpenter and who I now consider to be able to provide for himself without any further aid of mine, I leave all the carpenter tools I die possessed of in order to enable him to carry on his trade.

It is interesting that to Joseph, the eldest son, the father pays the highest compliment in bequeathing to him his carpentering tools. Mr. Tettrington's will shows, as do many other wills, that the father is concerned with each child individually. For the youngest son, the one least able to stand alone, the father indicates training for a profession. Very often, in lieu of educational legacies, children were apprenticed to honorably acquire a trade.

Apprentices were in demand. Newspapers were filled with notices asking—usually—for "lads of about fourteen to fifteen years of age." Such advertisements were inserted by blacksmiths, whitesmiths, cabinetmakers, carpenters, nailors, hatters, printers, potters, shoemakers, tanners, wheelsmiths, and so on. The diversity of manufacture as occupation shows that Pittsburgh's industrial progress was well under way at the beginning of the nineteenth century. Among the advertisements are these from the *Gazette*:

Wanted, by the Printer hereof, a LAD of about 14 or 15 years of age, that can read and write English, as an apprentice to the printing business.

Wanted, Apprentice to bow-string manufacturing. John Cowan's business in the s.w. corner of the Diamond.

There were numerous advertisements, too, for runaway apprentices. If a runaway were jailed and not called for, he was put up for sale to pay for his gaol expenses. One apprentice had run off several times, and each

time the master had inserted a notice in the *Gazette* offering a reward for his apprehension and return. The third notice offered only "Three Cents and no charges paid." The master, evidently, had had enough of his apprentice's wanderings.

After working with their employers until their apprenticeship period was over, it was customary for young men to "tramp" to a larger town or to the big cities. They waited, naturally, until they had saved up enough money to start out for themselves. Sometimes their associates would walk several miles along the road with them as a friendly send-off to shorten the journey.

Some of Pittsburgh's illustrious citizens were the product of apprenticeship. General James Kennedy Moorhead, who was prominent in city, state, and national business affairs, had been an apprentice. He decided to learn a trade after his father's death, so that later he might help his family. Apprenticing himself to a Pequa-settlement tanner, Mr. Moorhead—by his diligence and honesty to his employer—became foreman of the business long before his apprenticeship terminated. He built up a fortune for himself by planning a line of light packet boats for passenger use. Making the Monongahela River navigable was J. K. Moorhead's finest achievement.

In his will, recorded March 17, 1884, a codicil revoked an early bequest of one hundred shares of Monongahela stock to be used

for a library "for the benefit of apprentices and poor boys," because of the passing of the apprenticeship system. This bequest, as originally drawn, said:

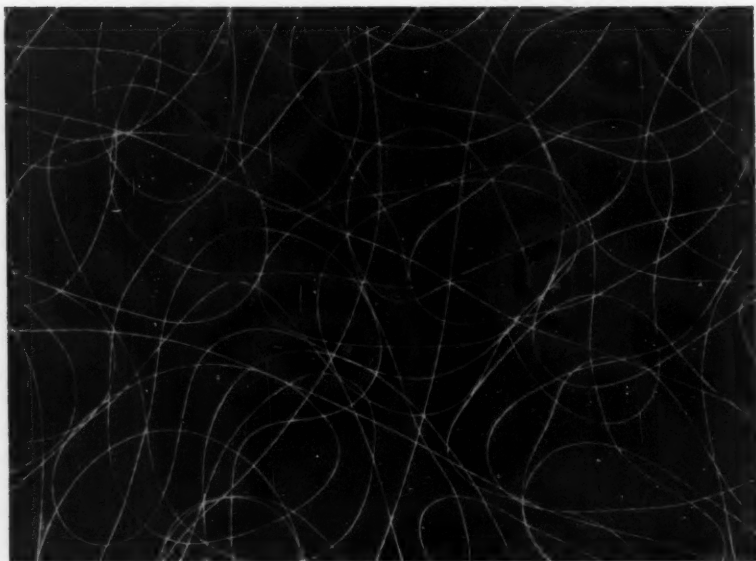
Having in early life felt the want of proper books, it has long been impressed on my mind that I should make some provision for the benefit of apprentices and poor boys. Therefore, I give to the "Young Men's Mercantile Library and Mechanics Institute of the City of Pittsburgh" all books, pamphlets, maps, charts, and printed documents contained in my office library. Also one hundred shares of stock in the Monongahela Navigation Company, provided they accept the same from my executors, and agree that any and all poor boys, whether apprentices or not, between the ages of 14 and 21 years, residing in the city of Pittsburgh or that part of the County of Allegheny and lying south of the Allegheny and Ohio Rivers, including Neville Island, forming the district which I have for many years represented in Congress, shall have access to the said library and the free use of any books contained therein, subject of course to the rules and regulations in regard to the same. Also, that the proceeds arising from this bequest shall, from time to time, be invested in the purchase of mechanical, agricultural, and scientific works best adapted to their use.

How disappointed Mr. Moorhead must have been that he could not share some of his profits with apprentice boys in Pittsburgh! Western Pennsylvania Hospital, however, benefited. For he changed that part of his will, making a codicil to transfer the hundred shares of stock in the Navigation company to the endowment of that Hospital's medical and surgical department: "the income therefrom to be applied exclusively to the support of free beds for charity patients," because "the apprenticeship system, I regret to say, has almost entirely disappeared and the conditions have been thereby rendered useless."

This record of one apprentice's success—building a fortune, winning renown and honor throughout his life—is just another proof of the value of apprenticeship training for the highest voluntary service, public or private. Mr. Moorhead's will was administered early in 1884. By that time, apprenticeship, too, had died.

Miss Chalfant is the author of *A Goodly Heritage* published last year by the University of Pittsburgh Press, which has gone like the proverbial hot cakes. It was based on the first three volumes of wills recorded in Allegheny County. She established and for twenty years headed the library for the bank now known as Peoples First National Bank & Trust Company. She has contributed numerous articles to bank and business publications, and is a graduate of Bethany College with M.A. degree from the University of Pittsburgh.

SILVER STRANDS THAT WILL NEVER GROW OLD



Almost magic-like are these silver strands of fiber glass. They can be as soft as silk or as strong as steel and their versatility has few equals.

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WAS CAESAR AN ENLIGHTENED DESPOT?

ROBERT SCHWARZ

THE death of Gaius Julius Caesar occurred two thousand years ago. From historians he has received the attention reserved for the most eminent celebrities on record. The temptation to compare his career and his gifts with those of Alexander the Great, Napoleon, and other statesmen-conquerors has been strong even in those historical circles not subscribing to the "great men" theory of history. It is a temptation that stems from the penchant of the human mind to fit all phenomena into some sort of labeled categories. Whether fruitful or not, attempts of this sort have been pursued in most fields of learning.

I propose to face the question of whether or not Caesar was an enlightened despot. But first I must explain the meaning of the term; enlightened despotism, within the perspective of this paper, has to be understood as broadly as possible. I mean by it more than the type of rule characteristic of such eighteenth-century monarchs as Joseph II or Catherine II, whose principle of government approximated rule by and of the prince, but for the people. I prefer rather to extend the definition to include any benevolent dictatorship, as long as pursuit of the ruler's self-interest does not run directly counter to the general will and welfare of the majority. This concept includes eighteenth-century enlightened despotism as commonly understood, but it leaves the door ajar for a great number of absolutist kings and military dictators of other ages.

Under this somewhat broadened definition, the question raised about Caesar could be as legitimately raised about Augustus, Mussolini, or Peron. Before arguing the main point, it would serve well to draw a sketch of Caesar's role as politician and general, up

to the time of his victory at the battle of Munda.

Born on July 12, 102 B.C., into an ancient, aristocratic family (the family belonged to the senatorial party), Caesar was early attracted to the Democratic party of Marius, to whom he was related by marriage.

When, however, Sulla, the "Roman Tory," returned to power in 82 B.C., Caesar was in danger of losing all opportunity to rise through party politics. He therefore chose to spend time in the East, participating in several successive military campaigns. After Sulla's death in 78 B.C., Caesar returned to Rome to engage in politics and law, without much success.

Following another trip to the East, Caesar finally became quaestor of Sicily, and then aedile, in which capacity, aided by the financial resources of the plutocrat Crassus, he won vast popularity as a man who spared no cost in giving the populace the most prodigal spectacles. After his appointment as *pontifex maximus* (head of the state religion), he collaborated with Crassus against the designs of the third strong man of the day, Pompey. This involved a lavish use of Crassus' money and power, and was continued until Crassus' death in 54 B.C.

After a praetorship and a proconsulship in Spain, Caesar was once more in Rome in 61 B.C., when a political revolution brought a temporary end to the "cold war" between Pompey on the one hand and Caesar and Crassus on the other. The so-called first triumvirate was formed in 60 B.C., in which the three men assumed all governing responsibility. Caesar's consulship in the year 59 B.C. allowed him to show Pompey his willingness to adhere to the spirit of the triumvirate, for

Caesar was instrumental in numerous laws that strengthened Pompey.

Caesar's proconsulship in Gaul and his first Gallic campaign were, therefore, the first concrete signs that the triumvirate was in jeopardy. For while Caesar subdued and incorporated Gaul (to this day Latin students are introduced to the military diary Caesar kept, *De Bello Gallico*, still an ideal Latin text for students because of its clear and simple style), Pompey and the senatorial party saw and feared his growing military power.

Refusing orders to return to Rome without an army, Caesar in 49 B.C. marched across the Rubicon against Pompey and defeated him at Pharsalus. After a journey to Egypt, where he gave the throne of the Pharaohs to Cleopatra, Caesar defeated the remnants of the senatorial army at Thapsus (46 B.C.) and at Munda (45 B.C.).

It is difficult to disagree with those historians who see in Caesar more than a temporary strong man who intended to save the republic and the Democratic party from deterioration. I think Caesar's dictatorship meets every requirement of our twentieth-century definition of that word, particularly in the time between July of 45 B.C. and the Ides of March of 44 B.C. Thus I think the question of Caesar's enlightened despotism is half answered. It remains to argue how enlightened his dictatorship was.

This is by far the more difficult part of the argument. To put the matter into the simplest form possible: Regardless of how much Caesar enjoyed the sweetness of power, was his rule beneficial to his subjects? The question at once arises: beneficial in the opinion of the Roman people, or just beneficial?

To this I say: The distinction could conceivably be an important one in the case of other historic personages whose character and place in the annals of man arouse similar speculation, but it seems to me to be unim-

portant in the case of Caesar. In the first place, the period under discussion is too short to admit of any conclusion about how the responsible part of the citizenry really felt about Caesar's work, in spite of such subsequent events as the defeat of Brutus and Cassius and the second triumvirate. In the second place, it is virtually impossible to discover, in the vastly complicated power politics of the day, where truly patriotic motivations and sentiments ended and naked personal ambition began, especially among the handful of persons who acted conspicuously in the drama of 44 B.C. to 31 B.C., and of whom the history books tell us anything.

If we admit that Caesar was an autocrat, or at least behaving like one—and there can be little doubt of it—were the few months of his sovereignty indicative of a patriarchal, benevolent rule designed to give the Roman people what was "best for them"? Sir Charles Oman, in his *Seven Roman Statesmen*, says of Caesar: "Any despot who is not a lunatic will adopt the same programme . . . [Oman is comparing Bonaparte in France with Caesar in Rome] . . . so far as he is able. This being understood, we may grant that the practical benefits conferred by Caesar alike on the City and the Empire were enormous." Sir Charles does not feel that a Machiavellian aspiration to power for the sake of power is necessarily in conflict with the enlightened variety of despotism. I would add that, on the contrary, if benevolence is instrumental in sustaining power, as it has so often been in history, a leader deserves the title of enlightened despot even if he does not sincerely "love the little

Dr. Schwarz is assistant professor of history at Carnegie Institute of Technology, where he has been on the faculty since 1948.

As a point of interest, Dr. Schwarz made inquiry and learned that, whereas 16.4 per cent of the students in Pittsburgh public schools studied Latin in 1932, only 7.6 per cent did last year.

man." Self-interest does not exclude enlightenment.

The only question as to Caesar's benevolence seems to me this: How far did it go, and how successful was Caesar in conferring valuable reforms on the multitude? His attempt to settle his veterans all through Italy was not a signal success, perhaps owing to the brevity of his rule. The program for agricultural recovery was abortive at best. The effort to raise the moral life of the upper classes was bound to fail, even if Caesar had been a man of greater integrity than he was. The increase of extravagance and excesses on the part of the aristocracy was inexorable even for Augustus a few years later, who appears to have had his heart in the task of regenerating public and private morality to a greater degree—and probably with a better conscience and with greater sincerity. Caesar was indeed at a total loss in the handling of this problem. It is, of course, quite true that Caesar instituted good government in the provinces and the municipalities, that he cut down graft and corruption, that he promoted both local and imperial patriotism.

But with all this he laid the groundwork for an empire which, by its very lack of formidable assignments, ultimately destroyed the patriotism that had been chiefly nourished by foreign threats. This is not to condemn Caesar for assisting to inaugurate a long period of peace in the Mediterranean world. But the empire conceived in the middle third of the first century B.C. could at best point to a comparative tranquility and prosperity; the heritage Caesar left to Augustus was, in my opinion, uninspired. No great philosophical or religious ideals passed from Caesar's mind or pen to succeeding generations. No lasting aim challenged the children and grandchildren of Caesar's veterans.

It may be asked: Is it so lowly a thing to have brought order out of civil war and to



JULIUS CAESAR

From the marble bust in the British Museum

have transmitted to the next generation the cornerstone of imperial equilibrium and stability? But civil war broke out anew upon Caesar's death, and such blessings as Augustus' principate brought with it were more to the credit of the men who ruled Rome after the battle of Actium than to Caesar. That Caesar did not complete the chore of putting Rome's internal house in order is possibly due to the early termination of his unrivaled sway. It is for this very reason that he was at best a potential enlightened despot, at worst an autocrat with a sense of responsibility to the dynasty he hoped to found.

While Caesar's internal policies were marked by resourcefulness, they do not seem to constitute a sharp break with the past, nor

do they bespeak particularly forward-looking authorship. Certain significant measures to improve existing conditions cannot be gainsaid. The calendar reform (on which our Gregorian calendar is based), whereby Caesar added three months to the year 46 B.C. and at the same time borrowed the system of 365¼ days per year from Alexandrian astronomers, is of course a credit to the efficiency with which Caesar handled problems pertaining to public life. But this does not seem to be any more impressive than the metric system introduced in the French Revolution.

The proletariat receiving dole was reduced by about half. Colonies were founded to absorb the veterans of foreign wars, but the issue of unemployed soldiers was not satisfactorily solved. The codification of civil law and the public works projects were more in the planning stage than on the road toward completion by March 15, 44 B.C., the day of Caesar's death.

Caesar's extension of citizenship to all inhabitants of the peninsula was not an unmixed blessing, but led to the abuses of the third century, forcing Caracalla to extend citizenship to all inhabitants of the empire. Historians debate the value of this measure, but I cannot help agreeing with those who deplore the chain reaction Caesar commenced, on the ground that the leveling of Roman citizenship brought millions of unassimilated peoples onto a par with the Latin population.

But by far the greatest sin of all, and one that obliges me to deny Caesar the adjective "enlightened" was, I think, that in the middle of reorganizing matters of state in Rome and Italy, shortly before his death, Caesar engaged in intensive preparations for an invasion of Parthia. One might attempt to make a case for his campaign as a national good, in so far as Rome would, by a victory, bring back the prestige it had lost in the Levant when Crassus was defeated a decade

before. But I strongly believe this is not convincing.

It seems more likely that Caesar was becoming a little weary with the difficult problems of internal reforms and was quick enough to see that most abuses were too deeply entrenched to be eliminated with the rapidity he liked so well to employ; and further that he realized his own example and moral strength would be no match for the diverse ills from which the state and nation suffered internally. Turning his back on the bothersome reforms at home and finding a semi-convincing rationalization for a war in the East, Caesar was ready to improvise a semblance of order in Rome and then to set out for Parthia. In view of the lack of consolidation of his direction in Italy, such a plan was, in my opinion, hardly worthy of a benevolent ruler.

Measured by this severe yardstick, it is possible that other men of Caesar's stature would fail to earn the title of enlightened despot. I would not gauge their success as enlightened despots by the sincerity with which they improved the lot of the common man as an intrinsic ethical good, even though some of them were probably prompted more by considerations of ameliorating national ills than by self-glory. I would rather weigh their candidacy, as I do Caesar's, by the result of their efforts and by the state of affairs at the end of their reign.

Sir Charles Oman writes that when we have found out the attitude of a particular century in history toward Caesar, we may know the nature of that century's outlook on history. It is not easy to estimate the way the twentieth century has regarded Caesar, but I think our contemporaries are surprised if or when they read in Dante's *Divine Comedy* that, next to Judas, Brutus and Cassius are placed by Dante in the most hellish part of hell, for murdering Caesar.



...in the Kitchen

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ART AND NATURE BOOKSHELF

THE EXPRESSION OF THE EMOTIONS IN MAN AND ANIMALS

By CHARLES DARWIN

Philosophical Library, Inc., New York City, 1955
(New printing; first published in 1892)

XI plus 372 pages (\$6.00)

21 text drawings; 7 original, 8 added plates

Carnegie Library no. 138 D26 (original edition)

WITH a hearty "Hi-ho, Silver," the Lone Ranger launched himself into our living room the other day and my youngsters sat enthralled through a half-hour's derring-do, as the daring and resourceful masked rider of the plains again battled the forces of evil in the early West.

I was reading this book at the time, only dimly conscious of the television, so I'm not clear as to plot or characters, but my attention was suddenly caught by the action, as I realized the denouement depended on communication of an identification by a woman so paralyzed she could neither speak nor move her limbs. This is precisely the sort of thing Darwin wrote of in *The Expression of the Emotions in Man and Animals*. The book was written almost seventy years ago, but the subject matter is as modern as Tonto.

Darwin investigated the hypothesis that bodily and facial movements are indicators of emotions, and that these movements are intelligible to other persons and animals. He sought answers to four questions: 1. Are movements of features and gestures of the body used to communicate states of mind? 2. If so, is this true of all groups of men and animals? 3. If so, are gestures and facial convolutions so standardized as to be universally intelligible among all groups of men? and 4. Are such actions inherited biologically, or culturally?

The result is what Margaret Mead, cele-

brated anthropologist of the American Museum of Natural History, calls in her preface a "startlingly fresh and original inquiry" of particular importance to those interested in nonverbal aspects of human communication. She has done work along this line and is a competent judge. As an evidence of her opinion of the soundness of Darwin's work in this field, she says that not only are the six principles he chose as guides for study quite basic, but modern science suggests only one other principle—projective tests—to add to his list.

Darwin sought dependable evidence from observations of infants, the insane, and animals, as well as from adults; from interpretations of the same groups of photographs by different observers; from the study of great works of art in literature, painting, and sculpture; and from observations of cultures other than his own. Some of these observations he could make for himself. For others, he depended on persons he thought likely to be accurate and intelligent reporters. He studied what little literature there was on the subject, and he paid particular attention to anatomical details of how facial expressions and gestures are actually performed.

His studies convinced him that movements of the features and the body are used to communicate emotions. This is, of course, just common sense; but common sense, when carefully investigated, is so often wrong it is heartening to discover that here, at least, it is correct. Darwin said it is possible to tell from actions alone of cats, dogs, apes, and other animals, as well as of humans, whether or not the state of mind is one of good humor, of rage, of seeking for affection, of holding on to reserve, or whatever. He sought for more subtle emotions in humans, and felt his evi-

dence proved emotions such as shame, joy, sorrow, frustration, or any of thirty-three other states of mind are communicated by facial expressions and bodily gestures.

As part of his evidence he quoted from Milton, Spenser, and Shakespeare, among others, to indicate that the great masters of the use of words capitalized on the appearance of the face or body of a character under stress of this or that emotion; in other words, capitalized on nonverbal communication long before science was born and could investigate the phenomenon. The fact that we today understand these passages proves their standardization in our western European culture for the past three hundred years and more.

They are not standardized throughout the world, however. In general, it is possible to convey some ideas almost anywhere—eating, for example, or peaceful intent—but there are others that are more difficult. Darwin cited, as part of his proof on this point, certain Abyssinian groups whose signal of "No" consists of tossing their heads up to the right and clucking with their tongues. We would not understand this sign, just as they would not understand our lateral shake of the head.

Darwin said he thought the fact that some gestures do seem universally intelligible, while others do not, lent weight to his contention that the "several races" of men are descended from a common stock. Obviously the universally intelligible gestures were developed before the separation into several groups; just as obviously the unique gestures were developed later.

His explanations of the origin of the movements of features and body that convey emotions are not entirely convincing, but are somewhat more plausible than his explanation for their being used by a succeeding generation. In general, he concluded that the first use of a particular expression of face or gesture of body that now communicates an

attitude was not the result of a desire to communicate. He thought it far more likely the result of a mental and muscular readiness to perform an action.

An example is the baring of the canines of a dog to indicate distrust, anger, or warning of readiness to attack. Darwin said that in the beginning when a dog fought, he bit, and to bite he had to bare his teeth. In due time all other animals—and the dog who bared his canines—came to realize the bared fangs meant readiness to bite as a sign of anger, distrust, or some other emotion.

This might be so, but I find it hard to believe Darwin's statement, conditioned on the above premise, that "Actions, which were at first voluntary, soon became habitual, and at last, hereditary, and may then be performed even in opposition to the will." This view is not readily acceptable to modern theories of the mechanics of heredity. It is really not compatible with the generally understood implications of Darwin's own supreme achievement, the idea that characteristics survive because they are of physical advantage to the species. Too many gestures seem purely conventional to have that idea apply.

The book is a revealing glimpse of the nineteenth-century naturalist at work, for in this study it is doubtful that our word *scientist* is truly descriptive of Darwin. It is a good example of how the men of a hundred years or so ago worked in an atmosphere lacking the prime characteristic of modern research—control of observations and observers. A reader almost gets the impression that this was a dilettante study, the work of an amateur. This is not said in an attempt to deprecate Darwin. It was the accepted mode of his day, and heaven help modern science when 2056 reviews its methods!

It is an exposition of the gentle, searching person who was Charles Darwin. There is a charming aura about this book. The per-

sonality of the author seeps through the information. For instance, he took great pains to ensure that, when he refuted a point made by another author, the other man should understand it was painful to Darwin to have to point out the error. His sense of propriety was delicate. It was developed to such a high degree that when he cited a bit of evidence concerning the power of the mind over the internal organs, and the person involved was a lady, I can't be sure I understand the passage.

All these attributes are expressions of the intellectual atmosphere in which he went about his studies. Perhaps the value of this book to modern readers lies less in the factual material presented—for that can be gathered again—than in the fact that one of those "mightier imaginations," as Miss Mead characterizes him, of a hundred years ago could make such distinct contributions to knowledge without possessing modern training and techniques. —JAMES L. SWAUGER

SIR HENRY RAE BURN

(Continued from page 85)

features is impressionistic, as is that of the landscape background. The parliamentarian stands against a looped, red-velvet curtain, his right hand resting on a balustrade, a spy-glass in his left hand as he looks down toward his wife. Light from the left puts the lady's features in luminous shadow and gives strong chiaroscuro to those of her husband. He wears a green coat over a striped green and white undergarment, and tan trousers.

The gallery affords an opportunity to compare the four Raeburns with a number of works by his contemporaries and predecessors of the British school. Though his portraits may lack the finesse and superficial qualities of some of these, for his forthright characterizations and his skill in handling paint, Raeburn's work holds up without apology in the company of the better-known English portrait painters.

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